AVIONICS FIELD APPROVAL

The attached form has been created to simulate an FAA Form 337 that has been submitted to the Seattle Flight Standards District Office (FSDO) for data approval.

When a Major Alteration is applied to an aircraft, the data used to install the Alteration must be approved by a Supplemental Type Certificate, a Field Approval, or other FAA approved data.

When the Field Approval process is requested by the installer, the installation data must be approved by a FSDO inspector before the aircraft can be returned to service. To achieve this, the Form 337 containing the proposed installation information (data) should be submitted to the FSDO office, and approved, **before** the alteration is installed onto the aircraft.

The proposed Alteration details should be derived from data acceptable to the FAA. Some sources include the manufacturer's installation instructions, Designated Engineering Representative (DER) approved 8110.3 forms, STC installations for other make and model aircraft, and Advisory Circulars (AC) created by the FAA. If the modification is complex, or cannot be substantiated by existing acceptable data, the Alteration may require STC approval.

The attached Form 337 simulates the installation of a VHF radio using the Field Approval process. This example illustrates the content of the form when it is submitted to a FSDO Inspector for data approval.

Blocks 1, 2, 4, 5, and block 6, subparts A, B, and C of the Form 337 must be completed according to AC43.9-1E.

Block 6, subpart D of the Form 337 must not be completed until the installation data is approved, and the Alteration is installed onto the aircraft.

Block 7 of the Form 337 must not be completed until the Alteration is installed and inspected according to the approved data in block 8.

Block 8 information of the Form 337 is described below:

Paragraph 1. This paragraph describes the removal of existing equipment the Alteration is replacing, if applicable.

Paragraph 2. This paragraph establishes that the manufacturer's installation instructions are considered acceptable data by the FAA. The manufacturer's installation manual number, revision level, and date must be included.

Paragraph 3. This paragraph addresses the location and structural justification of the Alteration. If the installation of components does not utilize existing approved locations, then the structural elements of the Alteration must be substantiated using acceptable data. The aircraft Station Number where the component is located must be included.

Paragraph 4. This paragraph describes the acceptable data found in Advisory Circulars that are appropriate for the Alterations electrical system.

Paragraph 5. This paragraph establishes that the manufacturer's installation instructions for the antenna are considered acceptable data by the FAA, and also sites Advisory Circular information for the antenna installation. The fabrication and installation of the antenna coaxial cable is also noted. The aircraft Station Number where the antenna is mounted, and reference to the antenna manufacturer's installation manual must be included. If an existing antenna is used, that information should be noted.

Paragraph 6. This paragraph provides acceptable data related to checking the installation for compatibility with existing aircraft systems.

Paragraph 7. This paragraph covers the requirement to compensate the magnetic compass after a modification to the aircraft's electrical system.

Paragraph 8. This paragraph shows the compliance with certification rules pertaining to the type of aircraft under modification. The installer should review the Federal Aviation Regulations (FAR's) applicable to the aircraft being modified, and list applicable parts in this paragraph. In this example, the current certification rules for the aircraft were used. The installer may review the Type Certificate of the aircraft, and determine the certification basis for the aircraft. The rules used to originally certificate the aircraft may be used to justify the installation.

Paragraph 9. This paragraph covers the revision to the aircraft weight and balance, and equipment list.

Paragraph 10. This paragraph covers the requirement to provide instructions for continued airworthiness of the installation. For most avionics installations, these instructions can be found in the manufacturer's manual, and Advisory Circulars.
A schematic of the system should be attached to the form for troubleshooting purposes. A locally produced schematic can be used as shown, or a copy of the manufacturer's installation manual schematic is acceptable. If the manufacturer's schematic is used, the interface between the unit and the airframe needs to be added. This is due to the generic schematics found in installation manuals. Adding airframe information will specify how the unit is installed into the aircraft's electrical and audio systems, and define which manufacturer's options are used.

Attached pages to the Form 337 must include the Nationality and registration number of the aircraft..

When the data in block 8 of the Form 337 has been reviewed and found appropriate by an Aviation Safety Inspector, block 3 of the form is completed. The statement and signature added by the Inspector approves the data contained in block 8.

With approved data, the alteration can be installed and conformed by an appropriately rated agency.

After the alteration is installed on the aircraft according to approved data, the date in block 6D of the form should be added to the attached pages.

When the Alteration is completed, the aircraft can be inspected, by a properly rated person or agency, and returned to service.

Using this method, avionics alterations will be processed in a timely manner, and installed using approved data.

U.S. Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1(or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in civil penalty not to exceed $1,000 for each such violation (Section 901Federal Aviation Act of 1958).

1. Aircraft	Make: **CESSNA**	Model: **TU206G**
	Serial No.: **U20604650**	Nationality and Registration Mark: **N123KM**
2. Owner	Name *(As shown on registration certificate)*: **I FLY CORPORATION**	Address *(As shown on registration certificate)*: **7813 AIRPORT ROAD RENTON, WA 98055**

3. For FAA Use Only

4. Unit Identification / **5. Type**

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	---------- *(As described in item 1 above)* ----------				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type / Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
JOHN E. NEUTON **45789 41ST AVE NW** **RENTON, WA 98055**	☒ U.S. Certificated Mechanic ☐ Foreign Certificated Mechanic ☐ Certificated Repair Station ☐ Manufacturer	**A&P 000000001**

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ APPROVED ☐ REJECTED

BY		FAA Flt. Standards		Manufacturer	Inspection Authorized	Other (Specify)
		FAA Designee		Repair Station	Person Approved by Transport Canada	
Date of Approval or Rejection		Certificate or Designation No.		Signature of Authorized Individual		

FAA Form 337 (12-88)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of work performed

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

1. Removed existing Narco Com 11 communication transceiver installation.

2. Installed Bendix/King KY96A-60 communications transceiver according to manufacturer's installation manual number 006-00674-003, revision 3, dated April 1994. Transceiver manufacturer's instructions used in accordance with AC43.13-2A, Revision 2, Chapter 2, Paragraph 22.

3. Transceiver mounted in existing radio rack at station at station 10.8 in accordance with AC43.13-2A, Revision 2, Chapter 2, Paragraph 23 e.

4. Transceiver electrical system installed according to the guidelines contained in AC43.13-2A, Revision 2, Chapter 2, Paragraph 27 a, b, c, d, e, g, and h. Additional guidance for the selection and installation of wiring and circuit protection was utilized from AC43.13-1B, Chapter 11, Sections 4, 5, 6, 7, 10, 11, and 15.

5. DMC-63 1/A antenna installed at station 47. Installation perfomed according to Dorne and Marcolin installation instructions 2104/39, and AC43.13-2A Change 2, Chapter 2, Paragraph 22, and Chapter 3, Paragraph 36, and 38 b. Antenna coaxial cable installed according to the above referenced Bendix/ King installation manual and AC43.13-2A Change 2, Chapter 3, 39b.

6. Interference test for installed equipment has been accomplished according to AC43.13-1B Chapter 11, Section 8, Paragraph 11-107.

7. Magnetic Compass has been compensated as required in AC43.13-1B, Chapter 12, Section 3, Paragraph 12-37.

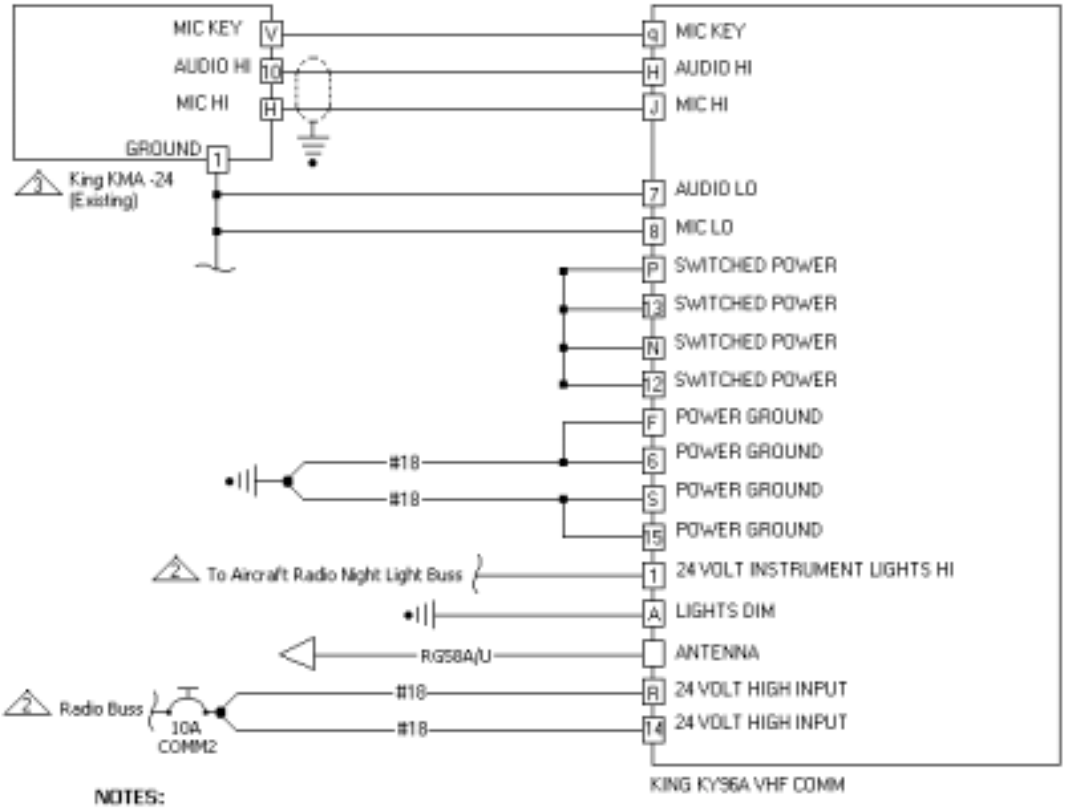
8. This installation meets the requirements of Title 14 CFR, Part 23.1301 function and installation, Part 23.1309 equipment, systems, and installations, Part 23.1351 (a) and (b) electrical equipment general, Part 23.1357 circuit protection devices, Part 23.1365 electrical cables, Part 23.1381 instrument lights, Part 23.1431 a and 23.1431 (b) electronic eqiupment, and Part 23.1529 instructions for continued airworthiness.

9. Aircraft weight and balance, and equipment list have been updated for this installation.

10. Instructions for Continued Airworthiness:
a. For circuit information pertaining to this installation, see attached system electrical schematic.
b.This installation shall be inspected according to AC43.13-1B Chapter 12, Section 1, and Section 2, Paragraphs 12-8 through 12-10, as applicable to communication radio systems annually, or every 100 hours of operation, as dictated by the aircraft inspection requirements.
c. Maintenance and repair of the tranceiver shall be completed according to Bendix/King service information.

END OF TEXT

SAMPLE ONLY



NOTES:

1. ALL WIRES ARE #22 UNLESS NOTED.
2. REFER TO CESSNA 206 SERVICE MANUAL FOR CONTINUATION OF AIRFRAME CIRCUITS.
3. REFER TO FAA FORM 337, DATE 3/17/99, FOR EXISTING SYSTEM DETAILS.

KING KY96A INSTALLATION

N123KM

11/20/98